

Switching Diode

Features

- SOD-123 Surface Mount Package
- High Breakdown Voltage
- Fast Speed Switching Time
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	100	Vdc
Peak Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc
Non-repetitive Peak Forward Surge Current	I_{FSM}		
Pulse Width = 1 second		1.0	A
Pulse Width = 1 micro second		2.0	A

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board (Note 1) $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	425	mW
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	290	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

1. FR-5 = 1.0oz Cu, 1.0in² pad



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**SOD-123
CASE 425
PLASTIC**

MARKING DIAGRAM



5D = Specific Device Code

M = Date Code

▪ = Pb-Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

Device	Package	Shipping†
MMSD914T1G	SOD-123 (Pb-Free)	3000 / Tape & Reel
MMSD914T3G	SOD-123 (Pb-Free)	10,000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

MMSD914T1G

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Reverse Breakdown Voltage (I _{BR} = 100 µAdc)	V _(BR)	100	-	Vdc
Reverse Voltage Leakage Current (V _R = 20 Vdc) (V _R = 75 Vdc)	I _R	-	25 5.0	nAdc µAdc
Forward Voltage (I _F = 10 mAdc)	V _F	-	1000	mVdc
Diode Capacitance (V _R = 0 Vdc, f = 1.0 MHz)	C _D	-	4.0	pF
Reverse Recovery Time (I _F = I _R = 10 mAdc) (Figure 1)	t _{rr}	-	4.0	ns

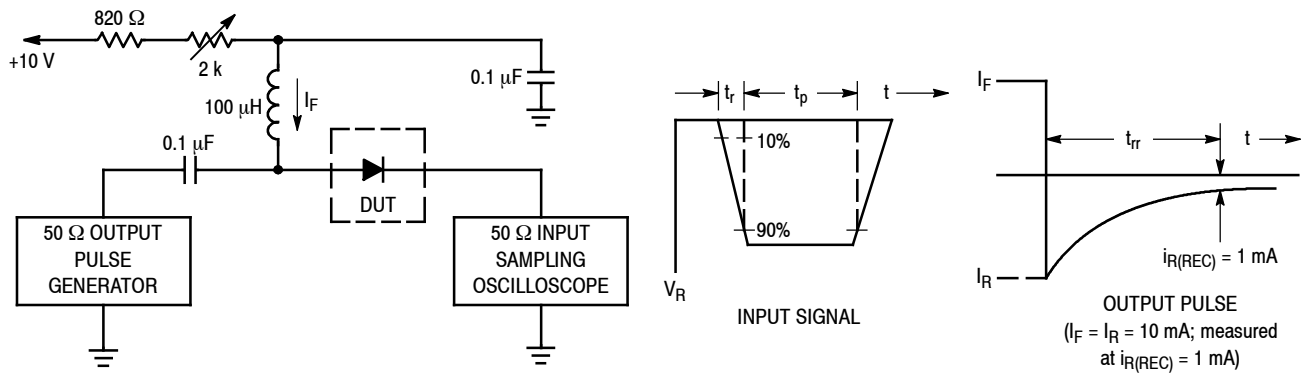


Figure 1. Recovery Time Equivalent Test Circuit

MMSD914T1G

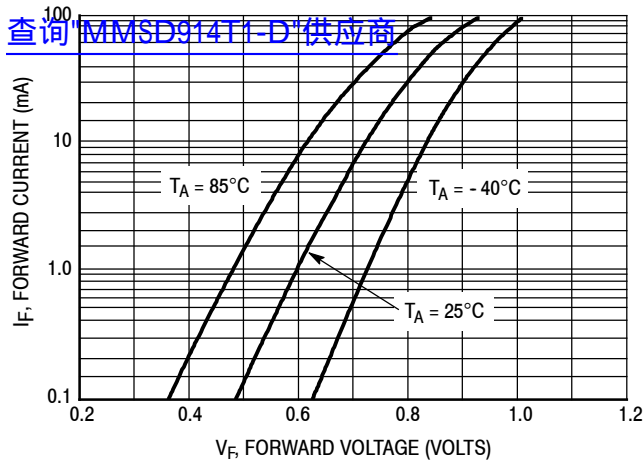


Figure 2. Forward Voltage

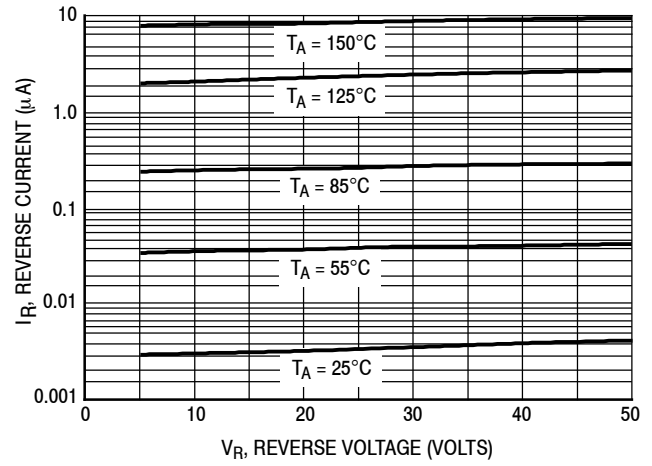


Figure 3. Leakage Current

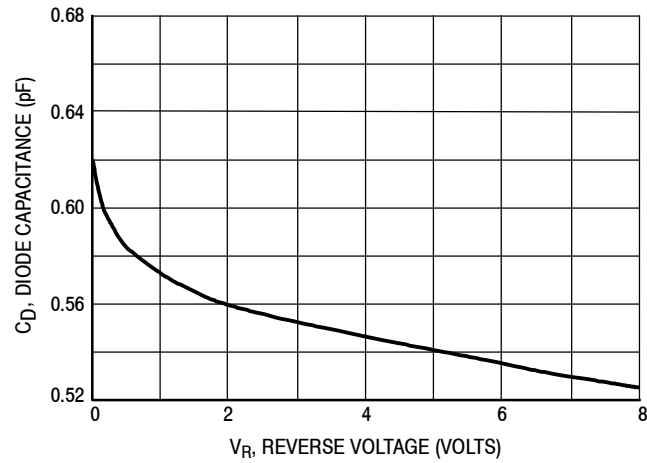


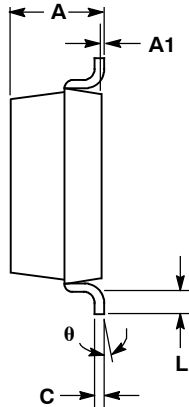
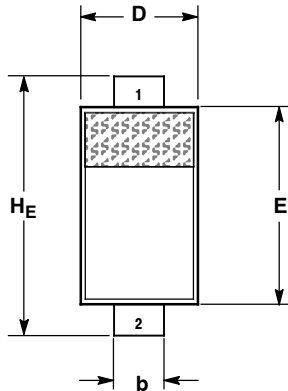
Figure 4. Capacitance

MMSD914T1G

[查询"MMSD914T1-D"供应商](#)

PACKAGE DIMENSIONS

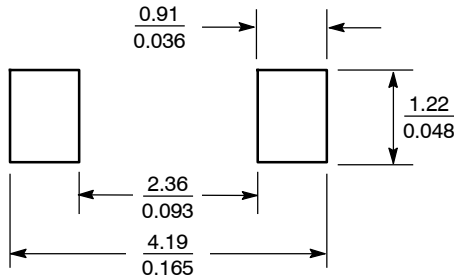
SOD-123
CASE 425-04
ISSUE G



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI
Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.


DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.94	1.17	1.35	0.037	0.046	0.053
A1	0.00	0.05	0.10	0.000	0.002	0.004
b	0.51	0.61	0.71	0.020	0.024	0.028
c	---	---	0.15	---	---	0.006
D	1.40	1.60	1.80	0.055	0.063	0.071
E	2.54	2.69	2.84	0.100	0.106	0.112
H _E	3.56	3.68	3.86	0.140	0.145	0.152
L	0.25	---	---	0.010	---	---
θ	0°	---	10°	0°	---	10°

SOLDERING FOOTPRINT*



SCALE 10:1 ($\frac{\text{mm}}{\text{inches}}$)

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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